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This paper summarizes some of the considerations which have affected the Center's research directions during the first half year of operation. The focus on the individual and on how educational policy choices relate to the individual is justified by three characteristics of the years ahead. (1) The role of education in alleviating social problems is becoming increasingly broad. It is argued that an urgent task of education and, therefore, of the Center, is to promote desirable changes in deeply rooted beliefs, values, attitudes, and behavior patterns. (2) Individuals and institutions will continue to be subjected to stresses from technological and social change. This necessitates that education prepare individuals for the future and help determine what that future society may be like. (3) The nation has the material and technological resources to implement the national goal of well-being for the individual. National goals are repeated which stress the balance of educational systems between the roles of serving a socializing function and aiding individual self-fulfillment. In conclusion, the Center's future contributions to educational change are considered. (MLF)

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EDUCATIONAL POLICY RESEARCH — TOWARD A UNIFYING FOCUS

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INTRODUCTION

As this is being written the Educational Policy Research Center at SRI is midway into its first year of operation. During these early months our preeminent concern has been the choosing of directions for investigations such that our labors will, in the end, prove most effective. This paper summarizes some of the considerations which have affected that choice. I find that I have to write it in the first person, for although we have arrived at our central focus and initial tasks in concert, no other one of the staff members would express the rationale in just the same way and I have no wish to commit them to my rationale.

The chosen focus is the individual. That is to say, our initial tasks and our continuing activities revolve around educational policy choices which relate more or less directly to the state of the individual, to man-in-society, and to the suitability of the environment to his total well-being. This selection should not connote a devaluation of, or inattention to, other important aspects of education--as a supplier of manpower, as an institution for socialization, as an instrument in the accomplishment of economic and political goals. The contrary is true. However, our choice does reflect a feeling that these other aspects are more adequately represented in existing studies, and that many of the most important educational issues in the decades immediately ahead will revolve around the condition and demands of the individual.

In the paragraphs below I want to give my justification for this choice and to indicate where I think our particular area of contribution may be.

JUSTIFYING THE FOCUS ON THE INDIVIDUAL

Our specific concern, above all, is educational policy for the last third of the 20th century. To be relevant, our studies must reflect the characteristics of these times. To be valuable, they must represent a concentration of our limited resources on those areas where the educational policy, being set collectively, is most crucial to the welfare of the nation and of mankind. To be effective, they must be rooted in social, economic, and political realities, and yet reach toward the unreachable.

Three characteristics of the years immediately ahead have particular import. (1) Education is being called upon, as never before in our history, to play a commanding and conscious role in attacks on the nation's social problems--poverty and unemployment, crime and violence, interracial and international strife, environmental deterioration. (2) Continuing high rates of technological and social change will impose intense stresses on institutions and individuals. (3) To an unprecedented extent the nation has the material and technological resources, if not the will, to implement the overarching national goal of well-being for the individual.

As elaborated below, these three characteristics comprise an argument for the focal position we have given, in our policy research undertakings, to the individual and his interaction with the social structure.

Education and Social Problems

That this nation will continue to have serious social problems for some time to come, and that education has something to do with their amelioration, are self-evident. Beyond that obvious point the concensus falters. What the role is to be, and how the system can modify itself to meet the challenge, are less apparent and less agreed upon. The following arguments are to the point that educational policy choices relating to the individual will be among the most important ones.

At the surface level, so to speak, the nation is beset by numerous social problems which we point to with the terms poverty, crime, racial discrimination, civil disorder, unemployment, pollution, and the like. Experience with attempts to deal straightforwardly with these problems--to tackle discrimination with civil-rights legislation, to alleviate poverty with welfare payments, to deal with civil disorders by increasing police power--indicates that such direct measures are partial solutions at best.

The reason appears to be intrinsic. It seems to be that these manifest problems are in a sense symptoms of underlying conditions that are more pervasive and less easy to objectify. As Milton Friedman has often pointed out, it is not an accident that planned social measures have produced results which are the opposite of those intended by their well-meaning sponsors. Urban renewal programs aimed at improving housing conditions for the poor seem to have worsened the neighborhood environment for a large fraction; welfare regulations instituted to improve the lot of ghetto children have apparently contributed to weakened family structure; minimum-wage laws intended to aid unskilled workers have become a factor in their unemployability; legislation and programs dedicated to the reduction of inequalities of opportunity between the races have been instrumental in interracial tensions reaching new peaks. As in the much-noted medical analogy, where the primary concentration has been on the removal of one symptom, the exacerbation of another has too often resulted.

Thus we come to suspect that there is a second level of working on the ills of the society. Analysts who take this tack argue that the miseries of the poor, the injustices experienced by minorities, the violences committed by the criminally disaffected, can in the long term be alleviated only through basic changes in the institutions of the society, in built-in power distributions, in the traditional roles to which persons are trained, in the time-hallowed structures and processes. They would hold that for the problems of poverty, crime, discrimination, and civil disorder should be substituted the problem of altering institutions and roles to incorporate less economic and political injustice and to be less productive of hypocrisy, intolerance, racism, and greed, and also the

problem of designing social programs which avoid the nonviable procedure of promoting the general interest in such a way that it depends on persuading people to act against their own perceived special interests.

But others, and we find ourselves of this persuasion, would go still further and note that there is a third level of problems with respect to which those of the second level stand in the relationship of symptoms. This is the level of the most basic assumptions, attitudes, and felt values held by the individual and promoted by the culture. Viewed from this perspective the syndrome of poverty, ghettoization, and civil disorder is less a problem of income level, discriminatory practices, anarchism, and police brutality than a problem of individual attitudes of despair, anomie, deep-rooted self contempt, and alienation, and of pathogenic basic assumptions in the culture. Combatting pollution of the environment is seen less as a matter of devising more perfect regulatory measures and more as a task of fostering wholesome relationships between man and nature. Arriving at patterns of diplomatic and defense actions which do not do violence to human values is perceived less as a choice between political and military strategies and more as a task of clarifying what it is, in the deepest sense, that we as a nation are trying to do in the world. Unless changes occur at this level, proposed measures to alter institutions, roles, and power distribution at the second level are bound to miss the mark.

To urge that these third-level problems press for attention is by no means to argue that the other two levels should be ignored. The physician who diagnoses a patient's surface symptoms as having organic immediate causes and still deeper psychogenic origins does not withhold symptomatic relief because he perceives the underlying problem to be one of basic attitudes toward life. We are not talking about a psychological reductionism in which social and political action and organizations become psychology writ large.

Similarly, to focus attention on the third-level problems is not to overlook that making changes in the institutions and roles which are the objects of concentration in the second-level view may very well be among the best ways of achieving progress at the third level. Indeed there is

much evidence to indicate that alterations of organizational structures, interaction patterns, and role expectations may be among the most efficacious ways of promoting desirable changes in habits, perceptions, attitudes, and assumptions. Individual personality comes into being, grows, functions, and alters through interpersonal relations.

Jobs, housing and education are relevant to the problem of poverty. So, at the second viewing level, are institutionalized tendencies toward caste-level maintenance. And so also, at the third level, are basic alienation (in the non-poor as well as the poor) and unwholesome attitude patterns (in the middle-class culture as well as the poverty culture). But the relevance of urban housing and employment programs, municipal political organizations, and school control patterns, is in the extent to which the form taken by the proffered jobs, welfare assistance, housing, and education, and the ways in which they are to be acquired, foster the needed changes in the culture and in the individual. It is in this sense--that without this factor the most carefully designed programs will not achieve their desired goals--we would assert that the key to long-term amelioration of social problems lies in changing deeply-rooted beliefs, values, attitudes, and behavior patterns, both of the individuals who constitute "the problem populations" and of the self-righteous others who assume that they are not implicated.

The central point we would make with regard to these three levels of problem description is the importance of being aware of all three, and of effort being committed at all three levels. But individual temperaments differ, certain organizational structures are more appropriate to one level than another, different agencies assume responsibility at different levels. The educational policy research centers have a mandate that implies particular attention to the long-term and the fundamental. Thus it is consistent with an overall balance of attention to all three levels of problems that this center should emphasize the third level and certain other research groups should be concentrating on the first or second level.

An urgent task of education in the broad sense, we are arguing, is to foster awareness of, and to promote desirable changes relating to, these third-level problems. From this follows a case for similar emphasis in the work of this center.

Our sense of outrage at widespread injustice and our compassion for our fellow man will at times make us impatient with researches which may seem abstract and remote from the very real human problems. But outrage and compassion are not enough; we need the deepest understanding if we are to emerge from the present period with the individual miseries somewhat allayed and yet with individual freedoms still preserved.

An analogy may reassure that in seeking to illuminate these underlying conditions we are dealing with that which is more, not less, real and relevant. Compare a person in the process of psychotherapy and a society in the process of attempting to solve its social pathologies. It is well known that the individual, in attempting to get relief from the pain of his neurosis, typically searches first for answers in his external environment. If only his wife would change her habits, or the work situation were different, or certain persons didn't "have it in for him," or life weren't so threatening. If he is to get the relief he seeks, however, he in the end takes responsibility for himself, and discovers that his problems are primarily problems of his own attitudes and responses. Or, to put it more bluntly, he discovers that he was divided against himself, and in a sense lying to himself to conceal that condition. So it may be with our social problems that the significant constructive change is first of all an inner one rather than outer, and in the direction of recognizing the hidden lies and resolving the hidden divisions. To put it in somewhat different terms, just as it is possible for a person to have a pathological set of beliefs about himself, so it may be possible for our society to possess a dysfunctional belief system. If so, then education's most important role may be to alter this.

Education in Designing the Future

Ours is a future-oriented society. At a scale completely unprecedented in human history, this nation has committed itself to designing the future. We have recognized that we have the material and technological resources to effect large-scale modification of the society of a few decades hence by choices made now.

But the state of the future is not solely a function of economic, demographic, technological, sociological, and political variables. It is also individuals' values and aspirations, attitudes and prejudices, beliefs and disbeliefs, visions and despairs.

Among the characteristics of the near future two which seem as certain as the proverbial death and taxes are continued change and increasing social complexity. Advancing technology and related forces now in motion presage even more rapid change in practically all aspects of society. Population growth and urbanization, as well as advancing communication and transportation, will crowd us together and force us to contend with increasingly complicated social processes. We will be in contact with more people, called upon to play more social roles, coping with new interpersonal pressures. A larger fraction of the work force will be increasingly involved with person-to-person relationships.

A strong sense of personal identity is required to live in a culture where relationship patterns are complex, depersonalizing forces are strong, and there is no obvious stable tradition with which to identify. The individual must learn to value himself not only for his role in the traditional culture or his economic value to society, but essentially for himself. He has to appreciate change, to enjoy it and move with it.

In the "post-industrial" society described by some of today's "futurists" education plays a far different role than in years past. If indeed the evolution to a "post-industrial" society is accomplished, education in the decades ahead will be considered to be the primary instrument not only of personal development but of constructing the future society. Education will be viewed as a continuing, lifelong experience--in fact, as the main business of life. Learning to learn will be paramount. There will be increased emphasis on the development of such characteristics as

flexibility, adaptability to change, ability to deal with complexity, skill in interpersonal relationships, ability to live with tension, ambiguity, and uncertainty. Education will be valued more and more in and for itself, undertaken because it is personally rewarding, because it is a deeply human experience, and because ultimately meaning in life is found through the discovery and realization of our most supremely human potentialities.

Education and National Goals

A prime function of publicly supported education in the United States of America is to implement the chosen goals of this nation. This implies two things above all. One is that a central function of education is to fit the raw material--children--to function effectively in the social process. This involves indoctrination, enculturation, socialization, vocational training, inculcation of society's values. The other implication is that the ultimate goal of the educational system, as of the nation, is in terms of the well-being of the individual.

For this nation is unique in its declared single-minded dedication of the social structure to the self-fulfillment of the individual. This overarching goal is stressed over and over again in the 1960 report of the President's Committee on National Goals:*

> The paramount goal . . . is to guard the rights of the individual, to ensure his development, and to enlarge his opportunity. (p. 1)
>
> Our enduring aim is to build a nation and help build a world in which every human being shall be free to dedicate and develop his capacities to the fullest. (p. 1)
>
> The status of the individual must remain our primary concern. (p. 3)
>
> All of our institutions--political, social, and economic--must further enhance the dignity of the citizen, promote the maximum development of his capabilities, stimulate their responsible exercise, and widen the range and effectiveness of opportunities for individual choice. (p. 3)

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* Goals for Americans Englewood Cliffs, N.J., Prentice Hall; 1960.

The very deepest goals for Americans relate to the spiritual health of our people . . . for ours is a spiritually based society. (p. 22)

The first national goals to be pursued . . . should be the development of each individual to his fullest potential. (p. 53)

The Declaration (of Independence) put the individual squarely at the center, as of supreme importance. It completely reversed the age-old order; it defined government as the servant of the individual, not his master. (p. 36)

The acid test of successful democratic government is the degree of effective liberty it makes available to the individual. That criterion establishes an order of values. Self-fulfillment is placed at the summit. All other goods are relegated to lower orders of priority. (p. 48)

The central goal, therefore, should be a renewal of faith in the infinite value and the unlimited possibilities of individual development. (p. 57)

For what shall it profit a nation if it shall solve all its social problems and lose the character that made it a nation in the first place. (p. 78)

This dual dedication of the educational system, to the conservational socializing function and to the goal of individual self-fulfillment, presents the possibility of two undesirable extremes. On the one hand, too thorough embracing of the cult of the self-determining individual could lead to disastrous neglect of the conserving function of education. On the other hand is the danger which the "new breed" of concerned students are determined to alert us to, namely the submergence of the individual in our preoccupation with making the machinery run.

Education has always had to seek a creative balance between the culture-transmitting and the culture-transcending roles. We live at a time when the demands for recognition of the significance of the individual--all individuals--are particularly strident. Numerous are the insistent forces pushing in this direction. They include resentment over unkept promises to the various underprivileged minority groups of the nation, increasing awareness of the depersonalizing influence of the technologized society, and the "expanded consciousness" person-centered youth culture. In the presence of these forces, and with the dominant culture

seeming to change so rapidly that the portion passed on is almost eclipsed by that which is new, maintaining the balance may be especially difficult.

There is still another aspect of this implementation of national goals that requires noting. As a nation we are committed to approaching such problems as the lessening of racial, class, and international tensions on a basis which assumes that it is meaningful to speak of the free human spirit, of equal rights for persons of differing skin color or other circumstances of birth, of the essential dignity of the individual human being. As a policy research activity within that nation we assume that commitment. But we have another commitment too. That is to evaluate honestly and thoroughly all evidence which seems to contradict these basic tenets--which may seem to indicate, for example, that human freedom of choice is a prescientific illusion, or that intrinsic and significant mental differences exist between racial groups, or that the basic values of the Judeo-Christian tradition represent only an arbitrary choice among many possibilities. These two commitments must be reconciled in the best way we know.

There is no way to escape this dilemma. In this policy research activity we are attempting to use the most advanced methodology and knowledge of science and technology to implement the noblest values of the humanities. In the endeavors which we have chosen for ourselves, as in few others, we are called upon to synthesize C. P. Snow's "two cultures."

Let us not doubt that this is ultimately possible. If indeed the noblest goals of this nation and of man, and the most profound scientific insight with regard to the nature of man, seem to be in two irreconcilable cultures, then there is something wrong with the way we are looking at one or the other, or both.

HOW WILL OUR WORK MAKE A DIFFERENCE?

Thus for three reasons the focus on the individual is asserted to be particularly appropriate for a policy research center with a mission to examine education in the light of alternative futures twenty and thirty years hence. Firstly, in education's role of contributing toward the solution of pressing social problems--poverty and unemployment, crime and violence, segregation and inequity--the fundamental task is to enable individuals to transform themselves. Secondly, the same can be said with regard to education's dual role of preparing individuals for the future and simultaneously helping to determine what that future society may be like. And finally, this focus is dictated by its central position in the national goals.

Now, assuming this focus, let us try to foresee where this center might make significant contributions in the months and years ahead.

No honest researcher pretends to work without some private picture of the kinds of outcomes he expects. The scientific attitude is distinguished not by the absence of expectations, but by an extreme willingness to have an unexpected outcome emerge, and to allow it to lead to still more fruitful studies. Thus I do not find it inappropriate to have some fairly definite concepts as to where I expect that our researches may be of profit to the nation.

The more specific question is: How may these researches accelerate or deflect changes that are already in process? Current education is much criticized. What are the desired directions of change? Where are the needs?

From the many criticisms we can cull a number of claims for attention:

- More relevant and higher quality educational services for the poverty and low-privilege groups, particularly in the sense of aiding them to become productive members of the society.

- More accurate and congruent portrayal of the world outside the school (e.g., contrast the school's description of American democracy with what the child sees in TV coverage of a national political convention).

- More contribution from education toward the individual's finding meaning in his own life, and self worth and significance as a member of society.

- More contribution toward believing in mankind and in the noblest ideals of our culture.

- More adequate preparation for a highly technological and rapidly changing society.

I see us contributing toward change in these directions in at least three ways:

1. Through systematic aids to decision making, evaluation, and social accounting which combine modern techniques of analysis of complex systems with individual-centered value considerations.

2. Through systematic and comparative analysis of how change may take place in the educational system and what the various effects and implications of such change may be.

3. Through helping to define guiding images of man and of the society of the future.

Social Accounting and Systematic Decision Making

That this nation is soon going to have some form of systematic social accounting seems highly probable. We are not likely to continue to spend billions of dollars a year on social programs without instituting some better sort of system to assess how much progress is being made toward the chosen goals. Several agencies are presently directing efforts toward this end. What is included in these social accounting systems will tend to receive attention, and what is left out will tend to be ignored. Thus it becomes extremely important to construct these systems in such a way that our paramount goals are adequately represented.

Any adequate set of social descriptors will comprise a hierarchy with what Gross* terms "grand abstractions"--the ideas that have stirred men's souls--at the top, undergirded by "intermediate abstractions" about which range the policy debates, which in turn rest on specific directly measurable, quantitative indicator concepts. All three of these ranges are necessary--the "grand abstractions" for inspiration and motive power (even though we may never measure them directly, even in principle), the intermediate-level indicators for describing the aims of programs and the issues of policy making, and the specific descriptors to support those higher in the hierarchy.

But in fact we eventually need two, and probably three such sets of descriptors in order to adequately encompass the goals and functions of the social institutions and programs which we aspire to assess. One is a set suited to describing the functioning of the society as a whole, in terms of its goals and its self-continuity functions (macro-environment). But since the declared national goals are ultimately in terms of the individual, a second set is required to reflect the subjective state of the individuals in the society (quality of life) as inferred from appropriate observables. Thirdly, in order to approach the true aim of social accounting, which is not only to assess how much has been accomplished but also to project alternative future states of society corresponding to alternative policy stances, a set is required which reflects the community culture and immediate environment with which the individual interacts (micro-environment). Each set will have to include indicators at the "intermediate abstraction" level which assess the overall satisfaction of human needs, the distribution of benefits, and the degree of surplus for self-fulfillment. The ultimate aim is an overall system of descriptors (which, together with their interactions comprise a model of the society) that will allow not only the assessment of positive and negative effects of such a major policy choice as massive compensatory education, but would also be useful in

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* B. M. Gross, "The State of the Nation: Social Systems Accounting," in R. A. Bauer, ed., Social Indicators, Cambridge, Mass., MIT Press, 1966.

projecting comparative futures to highlight the differing consequences between competing educational policies.

As the use of some sort of social accounting in the future seems almost ineluctable, so also does the widespread use in education of some systematic decision-making aids as an aid to policy setting. The present forms identified by such terms as computer-based simulation, cost/benefit analysis, systems analysis, and program budgeting foreshadow the future. Again the challenge is to devise systematic aids which are truly appropriate to the policy decisions to which they are applied. We need to be alert to the danger of becoming too enamored of sophisticated quantitative models, such that, in the press for quantification the nonquantifiable elements will be obscured, for in higher-level problems it is the nonquantifiable elements that are of greatest importance.

How Changes in the System Come About

A second area in which I expect our endeavors to be fruitful is in analysis of system change. Suppose we assume--for the moment at least--that we know more or less what we would need to do to eradicate the inequities of poverty and prejudice, to equalize and individualize educational opportunity, to implement the dream of education toward excellence for all. Where, given limited resources, should they be concentrated to have the most effect? Among the leverage points often proposed one hears:

- Change the philosophy of education since this presumably guides the entire enterprise.
- Change the curriculum, since this is supposedly what the student learns.
- Improve the implementation of objectives through use of the new educational technology.
- Introduce modern management methods and systematic decision making.
- Introduce and improve education in the early years, starting with such malleable years as ages 2 or 3.
- Decentralize the school administration and give control to local communities.

- Reorganize teacher training, since in the end the character of education is shaped by the teachers.

- Provide more, and more effective, compensatory education for the disadvantaged.

- Provide federal subsidies for competing school systems and competing teacher-training facilities, to introduce wholesome diversity, free enterprise, and competitive spirit of the marketplace.

A fundamental question to be resolved: Among the multitude of factors which directly or indirectly enter into the process of the education of the individual--philosophy, curriculum, technology, and so on through the list--which are the ones that really make a difference? A second equally important question has to do with how things can be changed to optimize the desired effects of these factors.

The necessary research on the first of these questions has not yet been accomplished. However, we can extrapolate from some important clues in the studies that are available. I strongly suspect that it will come out this way. In terms of achievement of both the broad goal of the fullest possible development of the individual's capacities and of his abilities to use them wisely and constructively, and also the more specific goals of the particular learning situations, the variables will tend to fall into two main groups. One will be a group of manifest factors which are the obvious sorts of things one would assess in order to describe an educational situation and how it differs from others. This list might include such items as cost per pupil, student/teacher ratio, amount of systematic reinforcement, use of visual aids, physical environment, degree of logical organization of subject material, and so on. A second group will be what might be termed "subtle factors," difficult to get at in operational terms and typically overlooked in giving a description of the educational situation. This second list might include such items as the teacher's expectations of the students, the teacher's basic esteem of herself and of the students as persons, the teacher's enthusiasm for whatever methods she is using, the student's perception of the relevance of the whole situation to his own goals, the congruence of stated and non-verbal messages, and so on. Preliminary evidence indicates that the

second type of factor may be much more important than the first. My hunch is that further research will show this to be true to a far greater extent than we now suspect.

Suppose that this turns out to be so. The consequences are much more far-reaching than appears at first glance. Clearly enough this finding would affect the design and staffing considerations of educational programs, allocation of educational research funds, use of federal funds for categorical aid and stimulation of educational innovation, and especially teacher training. But the overall implication is more profound than these. We typically hear questions about the educational system in terms like the following: Why are the ghetto schools ineffective in educating minority-group and poor children? Why do even the best public schools tend to produce conforming mediocrity and to suppress creative and innovative abilities? Why are the colleges not more effective in developing integrated and wholesome orientations to life, as contrasted with dispensing fragmented and compartmentalized predigested knowledge? If indeed the subtle factors play as commanding a role as some evidence seems to indicate, these are not the right questions. For in that case it would seem that the outputs of the schools are already truly reflecting faithfully the pervasive intentions, partially unconscious, of the society. If the effects of present schooling seem to include contributing to perpetuation of caste levels, to dull conformity, to intellectual fragmentation, the problem may be found to lie less in the area of efficiency and more with the collective intent.

The second important question has to do with how the system can be changed. Here again we have an abundance of relevant research and yet the full story is far from in. Again I will make bold to guess that what makes the difference will turn out to be subtle rather than manifest. Several recent scholars of the future such as Robert Heilbroner, Kenneth Boulding, and Fred Polak have made much of the concept that it is the image of the future which is the key to that future coming into realization. "Every society has an image of the future which is its real dynamic." Again there is evidence to indicate, but not demonstrate, that the power of the image may be far greater than we have suspected.

If this turns out to be so, it says in effect that one way to approach the changing of the educational system--perhaps the most potent way--is to change the cultural image of the function of the schools, the role of the teachers, and the growth potentialities of the child. This may not seem very different from the many current proposals to upgrade education through improved curricula and more technology. What I am talking about is, in fact, radically different. It is different in precisely the way that the neurotic's functioning is different when he acquires a new image of himself as having the ability to will with his whole self rather than being split into warring fractions, and as having the inner resources to recognize his own complicity in creating what he had termed his "problems" and to proceed in an integrated way toward their solution. To attain this kind of change is also difficult, subtle, and non-superficial in the same way as it is for the neurotic to change his self-image.

It is strange to observe that at this point in history when we literally have the knowledge and material resources to do almost anything we can imagine--from putting a man on the moon, to exploring the depths of the oceans, to providing an adequate measure of life's good to every person on earth--we also seem the most confused about what is worth doing. The great problems facing us are of a sort where we need belief in ourselves and will to act even more than we need new technologies, creative program concepts, and program budgeting. At a time when the nation may be in grave peril the most urgent task of education is to provide and promote a nobler image of man and of his future.

The Guiding Image of Man and of the Future

This brings us to the third area in which I expect that our researches will have some important impact, namely assisting to define the new guiding images of man and of the future. This sounds so brash that I would hesitate to make such a claim, were not the stakes so high and the need so great.

John Rader Platt has argued in The Step to Man (1966)--as have Kenneth Boulding (1966) and Teilhard de Chardin before him (1959)--that the present point in the history of man may well, when viewed in retrospect by

some future generation, appear as a relatively sudden cultural step. The portentous impact of the new technology is the heady yet sobering realization that we have the future in our hands, that man recognizes his role as, to use Julian Huxley's phrase, "a trustee of evolution on this earth." The new man, "homo progressivus" in Teilhard de Chardin's words, is described by Lancelot Law Whyte as "unitary man," by Lewis Mumford as the "new person," and by Henry A. Murray as an "alley of the future." The challenge of our time is whether we make "the step to man" or our Faustian powers prove our undoing and the whole vast machine goes off the track through the strains of internecine conflict and degradation of the environment.

To become the new man and to construct the new moral order require a guiding image which is worthy of the task. Man's highest learning comprises, in C. P. Snow's terms, not one culture but two. And the noblest of the images of man to be found in the culture of the humanities are somehow alien to the culture of the sciences. That this state of affairs may be a temporary one is suggested by Ernest Becker* who proposes that the two cultures can be joined in a true science of man through admission of the universal value statement that that which estranges man from himself is unwholesome. Whether this or something else becomes the unifying principle, the reconciliation may soon take place. On the one hand, we will come to use confortably many pluralistic images of aspects of man--one for his biochemical functioning, another perhaps for dealing with his pathologies, still another for encompassing his most fully human actions and proclivities. But on the other hand we will find nothing incompatible between any of these and an overarching image of what man can be, or perhaps more accurately, can come to realize that he is already.

We have in the science of today what may very well be significant precursors of tomorrow's image of man's potentialities. I would like to

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* E. Becker, Beyond Alienation. New York, George Braziller; 1967.

list several of these; documentation is reserved for a separate publication.*

1. There exists a vast and ever accumulating amount of evidence to indicate that the potentialities of the individual human being are far greater, in extent and diversity, than we ordinarily imagine them to be, and far greater than currently in-vogue models of man would lead us to think possible.

2. Similarly, the evidence mounts to indicate that a far greater portion of significant human experience than we ordinarily feel or assume to be so is comprised of unconscious processes. This includes not only the sort of repressed memories and messages familiar to us through psychotherapy. It includes also "the wisdom of the body" and those mysterious realms of experience we refer to with such words as "intuition" and "creativity." Access to these unconscious processes is apparently facilitated by a wide variety of factors including attention to feelings and emotions, inner attention, "free association," hypnosis, sensory deprivation, hallucinogenic and psychedelic drugs, and others.

3. Included in these partly or largely unconscious processes are self expectations, internalized expectations of others, images of the self and limitations of the self, and images of the future, which play a predominant role in limiting or enhancing actualization of one's capacities. These expectations, self images, visions of the future, tend to be self-fulfilling. Much recent research has focused on the role of self-expectations and expectations of others in affecting performance, and on the improvement of performance level through enhancing self image. On the social level research findings are buttressing the intuitive wisdom that one of the most important characteristics of any society is its vision of itself and its future, what Boulding calls "organizing images."† The validity of the self-fulfilling prophecy and the self-realizing image appears to grow steadily in confirmation.

Assuming that the evidence substantiating these propositions continues to mount, they have the most profound implications for the future. For they say most powerfully that we have undersold man, underestimated his possibilities, and misunderstood what is needed for what Boulding terms "the great transition."† They imply that the most profound revolution of the educational system would not be the cybernation of knowledge

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* W. W. Harman, "Belief Systems, Scientific Findings, and Educational Policy." Research Note No. 6747-4, Educational Policy Research Center, Stanford Research Institute.

† K. Boulding, The Meaning of the Twentieth Century. New York, Harper and Row, 1964.

transmission, but the infusion of an exalted image of what man can be and the cultivation of an enhanced self image in each individual child. They imply that the solution to the alienation and widespread disaffection in our society is not alone in vast benevolent social programs (which have sadly turned out to be only half-vast), but will come about through widespread adoption of a new image of our fellow man and our relationship to him. They suggest that the most pervasive illness of our nation is loss of the guiding vision, and the cure is to be found in a nobler image of man and of a society in which his growth may be better nurtured. They reassure that the image of the New Man and of the New Order need not be built of the gossamer of wishful thinking, but can have a sound foundation in the research findings of the most daring explorers of the nature of man and his universe.

This, then, is where I see our role. No longer cowed by the notion of the irreconcilability of the "two cultures" and the prestige gap between the sciences and the humanities, and basing our studies on the most relevant and carefully done research, on the experience of the boldest experimental programs, and on the soundest analysis, we can make our contribution--however small--to ennobling the image of the individual's possibilities, of the educational process, and of the future, and also to implementing the actualization of that image. It is important to note that the objective is not to demonstrate that a particular image is "true," for that in all probability can not be done. Rather, it is to argue that among the possible images that are reasonably in accord with accumulated human experience, since the image held is that most likely to come into being, we should choose the noblest.

POLICY RESEARCH AND THE STATE OF THE NATION

A comparison was made earlier between the situation of the neurotic individual seeking psychotherapeutic help and that of the society seeking policy research assistance. The neurotic is often very reluctant to see that his problem is as the therapist observes it to be. Similarly the society may be far from agreement on the nature of its deepest problems.

Many are the indications today that this nation is in serious trouble--perhaps more so than at any time since it was rent by civil war over a century ago. The past year has seen continuation of a major war abroad, precursors of widespread insurrection in our urban poverty areas, the nation's capital city in smoke and flames, peace demonstrators marching on the Pentagon, student sit-ins shutting down major universities. All of these are so familiar as hardly to warrant mentioning. We are inclined to forget that any one of these events would have been unthinkable as recently as a decade ago.

With the neurotic it is not so much in his particular behavior that his problem lies, as in the meaning he attaches to that behavior and in his interpretation of the behavior of others. It is in the area of meaning that the seriousness of the problems facing this nation show up most clearly.

It is not alone the fact that we are engaged in a war overseas that bothers us; it is that we have no clear agreed-upon sense of the meaning of that engagement. The primary charge of university students is not simply that professors' classroom performances are only mediocre and that the curriculum is only remotely relevant to life's issues. It is rather that the values of the university and of the society fail to capture the allegiance of modern youth.

Today's college students, tomorrow's leaders, are disenchanted with the ethic of hard work and frugality, and with the more modern ethic of

hard work and conspicuous consumption--with status goals and loyalty to one's firm, with life's meaning centering around activity and achievement in business or professional life, with a society which measures human progress in terms of GNP. They deeply question the meaning of the nation's programs and aims. We need only to remind ourselves of the changed connotation of such symbols and phrases as the military uniform, the badge and nightstick of the police, the American flag, the draft card, patriotism.

Yet we would be less than perceptive were we to conclude that this revolt of the young, except in its most extreme expressions, reflects disillusion with the promise and validity of American ideals and of the Western political tradition as a whole. The great majority of politically conscious "dissenting" youth of America, black and white, seem clearly to be afflicted with idealism and a demand for the good life in their generation, rather than with cynicism or nihilistic drives for destruction. Their paramount concern is less the substitution of something for, than the bringing into reality of the basic values and goals and principles underlying American democracy. The question of whether the means proposed will thwart the ends is another matter.

The signs of the extent and nature of the fundamental pathology are all around us. For our preservation as a nation we had better read those signs. In addition to maintaining law and order we had better listen to what the black militant organizations, the student protest groups, and the social reconstructionist parties are saying. We had better hear their none-too-gentle observations regarding the flaws and anachronisms in our present operations, the hypocrisy and corruption in our dealings with one another, the vast discrepancy between declared national goals and government in action. To become fully aware of these symptoms is at least equally important with the forceful maintenance of civil peace to the saving of our civilization and to the constructing of a desirable future.

I come back once again to the comparison with the neurotic. Like him, we search in the wrong place for the solutions in our problems. In an important sense our problems are not riots in the ghetto, rebellion

against the draft, pollution and destruction of the natural environment, dehumanization through technology, crime and violence. They are, rather, a pathological set of beliefs and values and an ignoble image of man. But if this diagnosis is correct, like the neurotic we will evidence stubborn social mechanisms of resistance to the abandonment of the unwholesome beliefs.

One of the forms of resistance is discussed by Maslow in an essay entitled "The need to know and the fear of knowing."* He points out that we conceal from ourselves not only knowledge of that in ourselves which we consider base, fearful, or evil, but also that which is most lofty, most creative, most glorious, most godlike. This concealment is abetted by a scientific image of man which is devoid of these exalted characteristics. Maslow argues that this is not so much a consequence of the nature of man in the universe as it is of the psychological characteristics of scientists. He speaks of "the need to desacralize as a defense . . . against being flooded by emotion, especially the emotions of humility, reverence, mystery, wonder, and awe . . . Science at its highest level is ultimately the organization of, the systematic pursuit of, and the enjoyment of wonder, awe, and mystery."†

Thus perhaps we will come to feel once again that it is not unscientific, unsophisticated, and uncritical to believe in the goals, in the original dream, of the United States of America. That dream meant something to millions of persons all over the world during the nineteenth and early part of the twentieth centuries. The behavior of the nation fell far short of the dream, but nonetheless the image of what America stood for gave hope to and inspired much of the world. But gradually over the past half century, and at an increasing pace, this image has faded and declined. The symbol of the American flag has been dragged into the mud, literally and figuratively, at home and abroad. A nation whose

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* A. H. Maslow, Toward a Psychology of Being, Princeton, N.J., Van Nostrand, 1962.

† A. H. Maslow, The Psychology of Science, New York, Harper and Row, 1966.

symbols no longer inspire concerted action toward common aspirations is not in the long term a viable entity.

The most telling symbol of all in revealing what kinds of considerations lay behind the founding of this nation is the Great Seal of the United States. The unfinished pyramid topped by the Divine Eye conveys a multilayered message far more powerfully than any set of words which might occupy the same space. The promised "new order of the ages" has never come to pass, and at the first time in our history when we have actually had the material resources to bring it into being the transcendental vision has become distorted, our ability to read the symbols has become dimmed, and the will is weak. The olive branch and the sheaf of arrows in the eagle's two claws remind of the need for not only the offer of peace and friendship but also potency and concerted will, for there are those who, for one reason or another, would destroy the seedbed in which the dream might grow.

The dream of the United States is worth believing in, not alone because of citizenship, but because it represents one of the noblest experiments in the history of man. Nowhere at no time has a nation set out to provide every citizen with a favorable opportunity to seek a rich, satisfying, significant, self-enobling life in that style, and by that path, which most befits him. We are entering an age in which the image could become real. An educational policy research center could do worse than to choose to consecrate itself to that end.